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03037.000100

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
SHIGEAKI HARAYAMA ET AL. : Examiner: Arun K. Chakrabarth  
Application No.: 09/742,123 : Group Art Unit: 1655  
Filed: December 22, 2000 :  
For: SYNTHESIS OF HYBRID :  
POLYNUCLEOTIDE MOLECULES :  
USING SINGLE-STRANDED :  
POLYNUCLEOTIDE MOLECULES : July 19, 2002

Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed documents are also enclosed.

U.S. Patent No. 5,521,291 is enclosed as a family-member equivalent for the non-English documents (WO 93/07282).

07/24/2002 AOSMAN1 00000045 09742123

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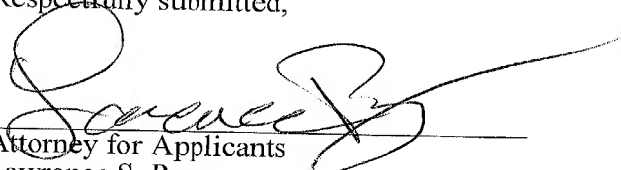
CONCLUSION

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

We also enclose a check for the required fee of \$180.00 to cover the Information Disclosure Statement under 37 C.F.R. 1.97©)(2).

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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FORM PTO 1449 (modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				ATTY DOCKET NO. <b>03037.000100</b>		APPLICATION NO. <b>09/742,123</b>	
APPLICANT <b>Shigeaki Harayama, et al.</b>				FILING DATE <b>December 22, 2000</b>		GROUP <b>1655</b>	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,252,479	10/12/93	Srivastava	435	235.1	
		5,521,291	5/28/96	Curiel, et al.	530	391.7	
		5,573,907	11/12/96	Carrino et al.	435	6	
		5,605,793	2/25/97	Stemmer	435	6	
		5,811,238	9/22/98	Stemmer et al.	435	6	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
		0 415 731	3/91	EP			
		0 911 396	4/99	EP			
		90/07936	7/90	PCT			
		93/07282	4/93	PCT			
		97/20078	6/97	PCT			
		98/32845	7/98	PCT			
		98/58080	12/23	PCT			
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	1	Alber, et al., "Contributions of hydrogen bonds of Thr 157 to the...", Nature, Vol. 330, No. 5 (1987), pages 41-46					
	2	Arrizubieta, et al., "Increased Thermal Resistance and Modification of...", The Journal of Biological Chemistry, Vol. 275, No. 37 (2000), pages 28843-28848					
	3	Barbas, et al., "Assembly of combinatorial antibody libraries on phage...", Proc. Natl. Acad. Sci., Vol. 88 (1991), pages 7978-7982					
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	5	Boder, et al., "Yeast surface display for screening combinatorial polypeptide libraries", Nature Biotechnology, Vol. 15 (1997), pages 553-557					
	6	Boublik, et al., "Eukaryotic Virus Display: Engineering the Major Surface...", Bio/Technology Vol. 13 (1995) pages 1079-1084					
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	<b>5,830,721</b>	<b>11/3/98</b>	<b>Stemmer, et al.</b>	<b>435</b>	<b>172.1</b>		
	<b>6,159,690</b>	<b>12/12/00</b>	<b>Borrebaeck et al.</b>	<b>435</b>	<b>6</b>		
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	7	<b>Buchholz, et al., "In vivo selection of protease cleavage sites from...", Nature Biotechnology, Vol. 16 (1998), pages 951-954</b>					
	8	<b>Chang, et al., "Evolution of a cytokine using DNA family shuffling", Nature Biotechnology, Vol. 17 (1999), pages 793-797</b>					
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	10	<b>Crameri, et al., "Combinatorial Multiple Cassette...", BioTechniques, Vol. 18, No. 2 (1995), pages 194-196</b>					
	11	<b>Brown, Molecular Biology LabFax, BIOS Scientific Publishers Ltd., Oxford, page 154</b>					
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	14	<b>Dower, et al., "High efficiency transformation of <i>E.coli</i> by high voltage electroporation", Nucleic Acids Research, Vol. 16 (1988), pages 6127-6145</b>					
	15	<b>Eckstein, "Exogenous application of ribozymes for inhibiting gene expression", Ciba Found. Symp., Vol. 209, pages 207-212</b>					
	16	<b>Ernst, et al., "Baculovirus surface display: construction and screening of a eukaryotic epitope library", Nucleic Acids Research, Vol. 26, No. 7 (1998), pages 1718-1723</b>					
	17	<b>Fisch, et al., "A strategy of exon shuffling for making large peptide repertoires displayed on filamentous bacteriophage", Proc. Natl. Acad. Sci, USA, Vol. 93 (1996), pages 7761-7766.</b>					
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	19	<b>Granziero, et al., "Baculovirus cDNA libraries for expression cloning of genes...", Journal of Immunological Methods, Vol. 203 (1997), pages 131-139</b>					
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37	Sock, et al., "DNA Replication of Human Polyomavirus JC...", Virology, Vol. 182 (1991), pages 298-308				
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| 41 | Warren, et al., "A Rapid Screen of Active Site Mutants in...", Biochemistry, Vol. 35 (1996), pages 8855-8862   |
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| 43 | Zhang, et al., "Directed evolution of a fucosidase from a galactosidase by DNA shuffling and screening", Proc. Natl. Acad. Sci, USA, Vol. 94 (1997), pages 4504-4509 |

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